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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,012	10/15/2003	Suzanne W. Dobbs	05015.0175U3	4902

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EXAMINER

GOLLAMUDI, SHARMILA S

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
10/686,012	DOBBS ET AL.	
Examiner	Art Unit	
Sharmila S. Gollamudi	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1a) ☒ Responsive to communication(s) filed on 15 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt of the Information disclosure Statement received on June 7, 2004 is acknowledged.

Claims 1-84 are pending in this application.

Information Disclosure Statement

The information disclosure statement filed 6/7/04 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. EP 0858795 has been placed in the application file, but the information referred to therein has not been considered. The other references have been considered.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-84 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 6,752,983. Although the conflicting claims are not identical, they are not patentably distinct from each other because instant application and the US patent claim similar subject matter.

Instant application broad claim 1 is directed to a hair care composition comprising: 1) a fixative; 2) alkanol component comprising ethanol, isopropanol or mixtures thereof; and 3) methyl acetate.

Claim 36 is directed to the incorporation of a propellant. Claim 57 recites: wherein the propellant comprises methane, ethane, propane, isobutane, n-butane, dimethyl ether, 1, 1-difluoroethane, 1, 1, 1, 2-tetrafluoroethane, or a mixtures thereof. Claims 48 and 56 recites a specific propellant: dimethyl ether. Claim 58 recites a specific propellant: propane or isobutene. Claim 60 recites a specific propellant: 1,1-difluoroethane.

Claim 52 is recites specific fixatives: a polymer or copolymer of acrylic acid and/or methacrylic acid or one of their polymerizable esters, a polymer or copolymer of acrylamide, hydroxy acrylate, t-butylaminoethyl methacrylate, octyl acrylate, octylacrylnmide, vinyl caprolactnm, crotonic acid, dimethylaminopropylacvlnmide, vinylpmolidone, vinyl acetate, vinyl propionate, vinyl caprolactam, and/or dimethicone; an ethyl, propyl, or butyl ester of polyvinyl methyl ether and maleic nnhydride copolymer; a vinyl acetate/crotonates/vinyl neodecanoate copolymer; an octlacrylamide/acrylates/butylaminoethyl methacrylate copolymer.

Claim 53 is directed to the incorporation of a neutralizer. Claims 74 recites specific neutralizers: aminomethyl propanediol; aminomethyl propanol; dimethylaminomethyl propanol; triisopropyl amine; dimethyl stearamine; dimethyl hydrogenated tallow amine; triethanolamine; bis(hydroxymethyl)aminomethane; sodium hydroxide; potassium hydroxide; ammonium hydroxide, or diethylpropylamine.

Claim 80 recites: A consumer article comprising: 1) a hand-held spray container, and 2) a sprayable composition contained within the spray container comprising the hair care composition of claim 1.

Claim 83 recites: a method of fixing the hair using the composition of claim 1.

Claim 84 recites: A hair care composition comprising: 1) a fixative; 2) alkanol component comprising ethanol, isopropanol or mixtures thereof 3) t-butyl acetate.

US patent claims: A hair care composition comprising: 1) 4-8 weight percent fixative, wherein the fixative comprises i) a polymer or copolymer of acrylic acid and/or methacrylic acid or one of their polymerizable esters; ii) a polymer or copolymer of acrylamide, hydroxy acrylate, t-butyl amino ethyl methacrylate, octyl acrylate, octylacrylamide, vinyl caprolactam, crotonic acid, dimethylaminopropylacrylamide, vinylpyrrolidone, vinyl acetate, vinyl propionate, vinyl caprolactam, and/or dimethicone; iii) an ethyl, propyl, or butyl ester of polyvinyl methyl ether and maleic anhydride copolymer; iv) a vinyl acetate/crotonates/vinyl neodecanoate copolymer; v) an octylacrylamide/acrylates/butylaminoethyl methacrylate copolymer; or vi) any mixture thereof; 2) 20-55 weight percent ethanol; 3) 5-25 weight percent methyl acetate.

Claim 4 incorporates a propellant. Claim 6 recites: wherein the propellant comprises methane, ethane, propane, isobutane, n-butane, dimethyl ether, 1, 1, 1-difluoroethane, 1, 1, 1, 2-

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tetrafluoroethane, or a mixtures thereof. Claim 5 recites a specific propellant: dimethyl ether.

Claim 8 recites a specific propellant: propane or isobutene. Claim 9 recites a specific propellant: 1,1-difluoroethane.

Claim 21 incorporates a neutralizer and claim 22 recites the instant neutralizers. Claim 28 recites: A consumer article comprising the composition that is recited in claims 1. Claim 27 recites: a method of fixing the hair using the composition of claim 1.

Therefore, it can be seen that both the instant application and US patent recite the same subject matter wherein the instant application recites the broader scope, which anticipates the claims 6752983. With regard to instant claim 84, although US patent does not recite t-butyl acetate, methyl acetate and t-butyl acetate are obvious derivatives and thus, claim 84 is obvious over US patent.

Claim Objections

Claim 81 is objected to since it depends on claim 82. It is suggested that claims depend on preceding claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 82 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 82 depends on itself and therefore intended limitation is unclear.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-32, 36-53, 57-59, 61-62, and 73-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madrange nee Dermain et al (4,173,627) by itself or in view of EP 08187277.

Madrange nee Dermain et al disclose a pressurized container containing a hair lacquer spray having reduced inflammability. The reference discloses the use of hair lacquers to maintain the hair in a proper shape by spraying the composition onto the hair. See column 1, lines 5-10. The liquid phase contains at least one of the following 1) 0-94% a lower alkanol, specifically ethanol, propanol, isopropanol, or butanol; 2) 0-35% a solvent; 3) 0-25% a ketone diluent, a alkyl acetate diluent, specifically methyl acetate, or a hydrocarbon. See column 3, lines 35-51. The examples utilize ethanol. The hair lacquer contains 10-85% of a propellant phase wherein the instant dimethyl ether, propane, and isobutane with bromotrifluoromethane. See examples and

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column 2, lines 25-35. The composition incorporates the 0.5-10% instant resins, specifically vinyl acetate/crotonate/vinyl neodecanoate copolymer which can be neutralized with the instant neutralizing agents, specifically sodium hydroxide and 2-amino-2-methyl-1-propanol. See column 4, line 19 to column 5, line 6 and examples. The composition contains other additives, specifically perfumes and silicones. See claim 10.

Although, Madrange nee Dermain et al suggests a combination of ethanol and/or isopropanol and methyl acetate, this is not an *explicit* teaching.

EP 08187277 teaches the a method of masking irritating alcohol odor, specifically ethanol, by utilizing methyl acetate or ethyl acetate in the amount of 0.1-10%. The masking action does not damage the properties of the lower alcohol and is utilized in cosmetics, drinks, and perfumes that contain lower alcohol. EP teaches the R represents a short alkyl chain. See abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to look to the guidance provided by Madrange nee Dermain and utilize the instant combination of ethanol/isopropanol and methyl acetate. One would have been motivated to do so since the reference clearly suggests the combination of at least one of lower alkanol, a solvent, and a ketone diluent for the liquid phase and it readily apparent to a skilled artisan that one can have a combination of all three in the liquid phase.

With regard to the amount of neutralizer, although Madrange nee Dermain et al do not explicitly disclose the concentration, it is the position of the examiner that the concentration an obvious parameter to a skilled artisan since the concentration would be dependent on the amount

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required to neutralize the resin. Thus, a skilled artisan would have been motivated to add a sufficient amount to yield a neutralized resin.

Furthermore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to combine the teachings of Madrange nee Dermain et al and EP and utilize a combination of lower alkanols, i.e. ethanol or isopropanol, and methyl acetate. One would have been motivated to do so since EP teaches the use of ethyl acetate or methyl acetate to mask the odor of lower alcohols in a cosmetic composition. Therefore, a skilled artisan would be motivated to utilize the combination to eliminate unpleasant odor produced by the ethanol.

Lastly, note that the Madrange nee Dermain et al and EP both teach an alkyl acetate which read on t-butyl acetate.

Claims 33-35, 56, 60, and 63-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madrange nee Dermain et al (4,173,627) by itself or in view of EP 08187277, in further view of Chuang et al (5,830,439).

As set forth above, Madrange nee Dermain teach a hair spray that contains a liquid phase comprising at least one of the following 1) 0-94% a lower alkanol, specifically ethanol, propanol, isopropanol, or butanol; 2) 0-35% a solvent; 3) 0-25% a ketone diluent, a alkyl acetate diluent, specifically methyl acetate, or a hydrocarbon. See column 3, lines 35-51. The Madrange nee Dermain also teaches the use of Madrange nee Dermain et al disclose the use of difluoroalkane as a suitable propellant. EP 08187277 teaches the a method of masking irritating alcohol odor, specifically ethanol, by utilizing methyl acetate or ethyl acetate in the amount of 0.1-10%.

Madrange nee Dermain et al do not explicitly teach the incorporation of water into the composition or I, 1-difluoroethane.

Chuang et al teach an aerosol hair spray resin composition. see abstract. Chuang teaches that the fixative hair resin is conventionally dissolved in an inert carrier such as a lower alcohol, for instance, ethanol, an aqueous ethanol solution, isopropanol, etc. Further, the aerosol contains conventional propellants such as 20/80 blend of propane/isobutane, dimethyl ether, difluoroethane, carbon dioxide, etc. See column 4, lines 30-37.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to look to the teachings of Chuang et al and utilize ethanol that is not absolute (anhydrous) and utilize an aqueous ethanol solution. One would have been motivated to do so Madrange nee Dermain et al do not disclose that the ethanol must be absolute or denatured ethanol; thus it would be obvious to one of ordinary skill in the at the time of the invention to use ethanol that is not anhydrous since Chuang teaches the conventional use of either. It should be noted that ethanol that is not anhydrous contains about 5% water and thus reads on the instant minimum concentration of water, i.e. 0.01%. Moreover, the manipulation of the amount of water as a co-solvent is a manipulatable parameter that is within the skill of an ordinary artisan.

Furthermore, one would have been motivated to look to Chuang et al and utilize the instant difluoroethane since Chuang discloses this is a conventional propellant utilized in the art. Moreover, one would have expected similar results since Madrange nee Dermain also teaches the use of difluoroalkane as a suitable propellant.

Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Madrange nee Dermain et al (4,173,627) in view of EP 08187277, in further view of Prabhu (5,866,718).

As set forth above, Madrange nee Dermain teach a hair spray that contains a liquid phase comprising at least one of the following 1) 0-94% a lower alkanol, specifically ethanol, propanol, isopropanol, or butanol; 2) 0-35% a solvent; 3) 0-25% a ketone diluent, a alkyl acetate diluent, specifically methyl acetate, or a hydrocarbon. See column 3, lines 35-51. EP 08187277 teaches the a method of masking irritating alcohol odor, specifically ethanol, by utilizing methyl acetate or ethyl acetate in the amount of 0.1-10%. EP teaches the R represents a short alkyl chain.

Although Madrange nee Dermain et al and EP both teach a lower alkyl acetate diluent, the references do not specifically teach t-butyl acetate.

Prabhu teaches tertiary amine oxides for use in shampoos, hair conditioners, and laundry detergent. Prabhu teaches the functional equivalence of methyl acetate, ethyl acetate, and t-butyl acetate as ester co-solvents. See column 5, lines 50-55.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to look to the teaching of Prabhu et al and utilize methyl acetate or t-butyl acetate with the expectation of similar results since Prabhu teaches the functional equivalency of methyl acetate and t-butyl acetate as ester co-solvents.

Claims 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madrange nee Dermain et al (4,173,627) in view of EP 08187277, in further view of Morawsky et al (5,599,524).

As set forth above, Madrange nee Dermain teach a hair spray that contains a liquid phase comprising at least one of the following 1) 0-94% a lower alkanol, specifically ethanol, propanol, isopropanol, or butanol; 2) 0-35% a solvent; 3) 0-25% a ketone diluent, a alkyl acetate diluent, specifically methyl acetate, or a hydrocarbon. See column 3, lines 35-51. EP 08187277 teaches

the a method of masking irritating alcohol odor, specifically ethanol, by utilizing methyl acetate or ethyl acetate in the amount of 0.1-10%. EP teaches the R represents a short alkyl chain.

Madrange nee Dermain et al do not specifically teach the instant fixatives.

Morawsky et al teach a low VOC hair spray wherein the composition contains conventional hair resins known in the art, including instant polymer of claim 55 and the polymers taught in Madrange nee Dermain (vinyl acetate/crotonate/vinyl neodecanoate copolymer). See column 2, lines 15-30.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to look to the teachings of Morawsky et al and utilize the instant polymer in the hair spray formulation of Madrange nee Dermain. One would have been motivated to do so since Morawsky teaches the instant polymer is a conventional hair resin utilized in the art.

Claims 1-51, 56-57, 61-72, and 76-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heeb et al (4,243,548) by itself or in view of EP 08187277.

Heeb teaches a pressurized aerosol formulation such as hair spray. The solution contains 12.9-17.5% of water, 4-6% carbon dioxide (propellant), 6-8% dimethyl ether (propellant), 35-40% organic solvents specifically ethanol and/or isopropanol, 32-35% of methylene chloride, and 0.5-3.1% of an active. The aerosol may also contain 33-43% of the organic solvent. Suitable solvents include acetone, ethyl alcohol, n-propanol, isopropanol, methyl acetate, ethyl acetate, etc. individually or as mixtures. See column 2, lines 50-60.

Example 1 teaches a hair spray containing 13.70g of water, 34.69g of methylene chloride, 33.65 isopropanol, 3.97g acetone, 6.95g dimethyl ether, 0.10g perfume oil, and 2.37g N-vinylpyrrolidone and vinyl acetate. Example 4 discloses the use of 7.76g of dimethyl ether,

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4.27g carbon dioxide, and 33.93g of trichloroethane. Example 15 replaces acetone with 3.97g ethyl acetate. Example 16 utilizes methyl acetate in a room deodorant compositions.

Although Heeb utilizes methyl acetate in example 16, Heeb does not teach the specific combination of ethanol/isopropanol and methyl acetate in the example.

EP 08187277 teaches the a method of masking irritating alcohol odor, specifically ethanol, by utilizing methyl acetate or ethyl acetate in the amount of 0.1-10%. The masking action does not damage the properties of the lower alcohol and is utilized in cosmetics, drinks, and perfumes that contain lower alcohol. See abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to look to the guidance provided by Heeb et al and utilize methyl acetate in the hair fixative composition. One would have been motivated to do so since Heeb teaches the use of ethyl acetate or methyl acetate as solvents and specifically utilizes ethyl acetate and isopropanol in the hair fixative composition. Thus, a skilled artisan can readily ascertain that Heeb's exemplified ethyl acetate may be substituted with instant methyl acetate with an expectation of similar results since both are ester solvents and are taught to be suitable by Heeb.

Further, it is the examiner's position that the concentrations of the components are manipulatable parameters wherein a skilled artisan can readily optimize the concentrations of the prior art.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to combine the teachings of Heeb et al and EP and substitute the exemplified ethyl acetate with methyl acetate. One would have been motivated to do so since EP teaches the use of ethyl acetate or methyl acetate to mask the odor of lower alcohols in a cosmetic composition.

Therefore, it is prima facie obvious to substitute one functional equivalent for another with the expectation of similar results since the prior art teaches the use of either for the same purpose.

Lastly, note that the Madrange nee Dermain et al and EP both teach an alkyl acetate which read on t-butyl acetate.

Conclusion

None of the claims are allowed at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila S. Gollamudi whose telephone number is 571-272-0614. The examiner can normally be reached on M-F (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on 571-272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sharmila S. Gollamudi
Examiner
Art Unit 1616

SSG


MICHAEL HARTLEY
PRIMARY EXAMINER